BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

NAME OF WORK: Improvements to CC Roads and CC Drains works at Kogilu Layout in Ward No.05 Byatarayanapura Sub Division

Estimate Cost Rs. 9900000.00

Sl no.	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
1	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. and as per the directions of the Engineer-in-charge of the work .	Cum							
	For Culvert								
			1	6.30	2.10	0.75	9.92		
			1	6.00	2.10	1.00	12.60		
			1	2.50	2.10	1.00	5.25		
			1	3.70	2.10	1.00	7.77		
			1	4.40	2.10	1.00	9.24		
	1st Main 4thA Cross		1	6.10	2.10	1.00	12.81		
	5th Cross		1	8.40	2.10	1.00	17.64		
			1	5.40	2.10	1.00	11.34		
	New Drain								
	Kogilu Layout								
	bande Main Road		1	466.30	1.55	0.92	662.99		
	Sai Baba Temple Road		2	120.00	1.20	1.10	316.80		
			12	0.28		2.00	6.72		
	For Drain Desilt								
	1st main Bond Road		1	38.20	0.60	0.45	10.31		
	1st main Bond Road		1	11.80	0.60	0.45	3.19		
	1st main Bond Road		1	21.00	0.60	0.45	5.67		
	1st main Bond Road		1	99.00	0.60	0.45	26.73		
	1st main Bond Road		1	37.00	0.60	0.45	9.99		
	1st main Bond Road		1	33.00	0.60	0.45	8.91		
	1st main Bond Road		1	25.00	0.60	0.45	6.74		
	1st main Bond Road		1	37.00	0.60	0.45	9.99		
	1st main Bond Road		1	36.00	0.60	0.45	9.72		
	For CCRoad								
	St michel School Road		1	98.00	4.9	0.30	145.10		
	Jai Bheem Nagar		1	17.00	4.8	0.30	24.41		
	Ambedkar Bhavan Road		1	17.00	5.50	0.30	28.05		
						Cum	**1361.89**	**137.80**	**187669.03**
	Basic Rate	130.00							
	Area Weightage @6%	7.80							
	Total	**137.80**							
2	Removing B S Slab of Drain and stacking 7.5MM Thick, and as per the directions of the Engineer-in-charge of the work	Sqm							
	1st main Bond Road		1	30.00	1.65		49.50		
	1st main Bond Road		1	9.80	1.65		16.17		
	1st main Bond Road		1	16.00	1.65		26.40		
	1st main Bond Road		1	80.00	1.65		132.00		
	1st main Bond Road		1	29.50	1.65		48.68		
	1st main Bond Road		1	26.50	1.65		43.73		
	1st main Bond Road		1	20.00	1.65		33.00		
	1st main Bond Road		1	29.50	1.65		48.68		
	1st main Bond Road		1	28.50	1.65		47.03		
						Sqm	**445.17**	**104.94**	**46716.14**
	Basic Rate	99.00							
	Area Weightage @6%	5.94							
	Total	**104.94**							

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Sl no.	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
3	Refixing stone slabs of drains and pointing in C.M (1:3) and as per the directions of the Engineer-in-charge of the work .	Sqm							
	1st main Bond Road		1	30.00	1.65		49.50		
	1st main Bond Road		1	9.80	1.65		16.17		
	1st main Bond Road		1	16.00	1.65		26.40		
	1st main Bond Road		1	80.00	1.65		132.00		
	1st main Bond Road		1	29.50	1.65		48.68		
	1st main Bond Road		1	26.50	1.65		43.73		
	1st main Bond Road		1	20.00	1.65		33.00		
	1st main Bond Road		1	29.50	1.65		48.68		
	1st main Bond Road		1	28.50	1.65		47.03		
						Sqm	**445.17**	**111.30**	**49547.42**
	Basic Rate	105.00							
	Area Weightage @6%	6.30							
	Total	**111.30**							
4	Providing granite slabs of selected quality roughly dressed and fixed in cement mortar(1:6) including fixing curing etc and as per the directions of the Engineer-in-charge of the work .	Sqm							
			1	8.50	1.65		14.03		
	1st main Bond Road		1	2.00	1.65		3.30		
	1st main Bond Road		1	5.00	1.65		8.25		
	1st main Bond Road		1	19.00	1.65		31.35		
	1st main Bond Road		1	7.50	1.65		12.38		
	1st main Bond Road		1	6.50	1.65		10.73		
	1st main Bond Road		1	8.00	1.65		13.20		
	1st main Bond Road		1	7.50	1.65		12.38		
	1st main Bond Road		1	7.50	1.65		12.38		
						Sqm	**117.98**	**742.00**	**87537.45**
	Basic Rate	700.00							
	Area Weightage @6%	42.00							
	Total	**742.00**							
5	Construction of Rolled Cement Concrete mix 1:4:8 OPC cement @180kgs, with 25mm and down size graded granite metal coarse aggregate at 0.85cum and fine aggregates @0.57cum base course with coarse and fine aggregate conforming to IS:383, aggregate cement ratio 12.1 and minimum cement content of 180kg/ cum, aggregate gradation to be as per Table 600-4 after blending, mixing in batching plant at optimum moisture content, transporting to site, laying with a paver with electronic sensor, compacting with 8-10 tonnes smooth wheeled vibratory roller to achieve, the designed flexural strength, finishing and curing complete as per specifications and as per the directions of the Engineer-in-charge of the work	Cum							
	For Culvert								
			1	6.30	2.10	0.15	1.98		
			1	6.00	2.10	0.15	1.89		
			1	2.50	2.10	0.15	0.79		
			1	3.70	2.10	0.15	1.17		
			1	4.40	2.10	0.15	1.39		
	1st Main 4thA Cross		1	6.10	2.10	0.15	1.92		
	5th Cross		1	8.40	2.10	0.15	2.65		
			1	5.40	2.10	0.15	1.70		
	New Drain								
	Kogilu Layout								
	bande Main Road		1	466.30	1.55	0.15	108.41		
	Sai Baba Temple Road		1	240.00	1.20	0.15	43.24		
	St michel School Road			98.00	4.91	0.15	72.22		
	Jai Bheem Nagar			17.00	4.90	0.15	12.50		

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Sl no.	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	Ambedkar Bhavan Road		1	17.00	5.50	0.15	14.03		
						Cum	263.87	3606.12	951560.77
	Basic Rate	3402.00							
	Area Weightage @6%	204.12							
	Total	3606.12							
6	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. and as per the directions of the Engineer-in-charge of the work	Cum							
	For Culvert								
			2	6.30	0.60	0.50	3.78		
			2	6.00	0.60	0.50	3.60		
			2	2.50	0.60	0.50	1.50		
			2	3.70	0.60	0.50	2.22		
			2	4.40	0.60	0.50	2.64		
	1st Main 4thA Cross		2	6.10	0.60	0.50	3.66		
	5th Cross		2	8.40	0.60	0.50	5.04		
			2	5.40	0.60	0.50	3.24		
						Cum	25.68	4871.76	125106.80
	Basic Rate	4596.00							
	Area Weightage @6%	275.76							
	Total	4871.76							
7	Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. and as per the directions of the Engineer-in-charge of the work	Cum							
	For Culvert								
			2	6.30	0.50	0.45	2.84		
			2	6.00	0.50	0.45	2.70		
			2	2.50	0.50	0.45	1.13		
			2	3.70	0.50	0.45	1.67		
			2	4.40	0.50	0.45	1.98		
	1st Main 4thA Cross		2	6.10	0.50	0.45	2.75		
	5th Cross		2	8.40	0.50	0.45	3.78		
			2	5.40	0.50	0.45	2.43		
						Cum	19.28	5305.30	102180.08
	Basic Rate	5005.00							
	Area Weightage @6%	300.30							
	Total	5305.30							
8	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for sides and soffits of beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1m in depth including cost of all materials, labour complete as per specifications.and as per the directions of the Engineer-in-charge of the work .	Sqm							
	Kogilu Layout		4	466.30		0.65	1219.19		
	bande Main Road		4	240.00		0.81	777.60		
	Sai Baba Temple Road					Sqm	1996.79	309.52	618045.82
	Basic Rate	292.00							
	Area Weightage @6%	17.52							
	Total	309.52							

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Sl no.	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
9	Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. and as per the directions of the Engineer-in-charge of the work .	Cum							
	For Culvert Vent bed								
			1	6.3	0.6	0.15	0.567		
			1	6.00	0.50	0.15	0.45		
			1	2.50	0.50	0.15	0.19		
			1	3.70	0.50	0.15	0.28		
			1	4.40	0.50	0.15	0.33		
	1st Main 4thA Cross		1	6.10	0.50	0.15	0.46		
	5th Cross		1	8.40	0.50	0.15	0.63		
			1	5.40	0.50	0.15	0.41		
	For Side								
			2	6.30	0.50	0.15	0.95		
			2	6.00	0.50	0.15	0.90		
			2	2.50	0.50	0.15	0.38		
			2	3.70	0.50	0.15	0.56		
			2	4.40	0.50	0.15	0.66		
	1st Main 4thA Cross		2	6.10	0.50	0.15	0.92		
	5th Cross		2	8.40	0.50	0.15	1.26		
			2	5.40	0.50	0.15	0.81		
						Cum	**9.72**	**5627.54**	**54725.01**
	Basic Rate	5309.00							
	Area Weightage @6%	318.54							
	Total	**5627.54**							
10	Providing Flush pointing to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications.and as per the directions of the Engineer-in-charge of the work .	Sqm							
	For Culvert								
			2	6.30		0.45	5.67		
			2	6.00		0.70	8.40		
			2	2.50		0.70	3.50		
			2	3.70		0.70	5.18		
			2	4.40		0.70	6.16		
	1st Main 4thA Cross		2	6.10		0.70	8.54		
	5th Cross		2	8.40		0.70	11.76		
			2	5.40		0.70	7.56		
						Sqm	**56.77**	**223.66**	**12697.18**
	Basic Rate	211.00							
	Area Weightage @6%	12.66							
	Total	**223.66**							

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Sl no.	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
11	Providing and laying in position plain cement concrete of mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.875 cum and fine aggregtes @ 0.460 cum, with super plasticisers @ 3 liters confirming to is 9103-1999 reafirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. and as per the directions of the Engineer-in-charge of the work .	Cum							
	Bottom Raft								
	Kogilu Layout								
	bande Main Road	Cum	1	466.30	1.10	0.15	76.94		
	Sai Baba Temple Road	Cum	2	120.00	1.10	0.15	39.60		
	bande Main Road	Cum	2	466.30	0.15	0.65	91.26		
	Sai Baba Temple Road	Cum	4	120.00	0.15	0.80	57.60		
	bande Main Road	Cum	1	466.30	0.15	0.15	10.49		
						Cum	**275.89**	**5998.54**	**1654928.15**
	Basic Rate	5659.00							
	Area Weightage @6%	339.54							
	Total	**5998.54**							
12	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. and as per the directions of the Engineer-in-charge of the work	Tonne							
	for Drain 75 kg			265.40	0.075		19.90		
						Tonne	**19.90**	**75223.96**	**1497314.54**
	Basic Rate	70966.00							
	Area Weightage @6%	4257.96							
	Total	**75223.96**							
13	KSRRB M300- Construction of Embankment with Material Gravel/ Murrum. KSRRB M300-53. Construction of embankment with approved material Gravel/Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300-2 complete as per specifications.(Which includes cost of gravel/murrum, watering charges & compaction by vibratory roller) and as per the directions of the Engineer-in-charge of the work .	Cum							
	Kogilu Layout								
	bande Main Road		1	466.30	0.15	0.45	31.48		
	For Cc Road								
	St michel School Road		1	98.00	4.34	0.34	144.61		
	Jai Bheem Nagar		1	17.00	4.90	0.30	24.99		
	Ambedkar Bhavan Road		1	17.00	5.50	0.30	28.05		
						Cum	**229.13**	**344.50**	**78934.38**
	Basic Rate	325.00							
	Area Weightage @6%	19.50							
	Total	**344.50**							

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Sl no.	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
14	Providing, laying spreading and compacting graded stones aggregate to wet mix macadam specifications including premixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying, in uniform layers with paver in sub base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications and as per the directions of the Engineer-in-charge of the work	Cum							
	For Rcc Drain Side Fillling								
	Kogilu Layout		1	466.30	0.15	0.30	20.98		
	bande Main Road					Cum	20.98	2001.28	41993.86
	Basic Rate	1888.00							
	Area Weightage @6%	113.28							
	Total	**2001.28**							
15	Precast slab 20mm and down size for slab (including steel reinforcement) including centring and shuttering machine mixed concrete laid in layers not exceeding 15cms thick well compacted cost of all materials labour HOM of machinerles curing complete as per specifications C : C 1:1.5:3 Including all cost of material (DATA RATE ENCLOSED) 10cm thick RCC pre cast slab. and as per the directions of the Engineer-in-charge of the work .	Sqm							
	Kogilu Layout		1	466.30	0.90		419.67		
	bande Main Road		1	40.00	0.90		36.00		
	Aruna Communication					Sqm	455.67	2337.00	1064900.79
	Data Rate	**2337.00**							
16	Providing and fixing RCC precast cover slab of 250mm thick made out of CC 1:2:4 and jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per the directions of the Engineer-in-charge of the work . (Data Rate)	Sqm							
	For Culverts		1	6.30	1.50		9.45		
			1	6.00	1.50		9.00		
			1	2.50	1.50		3.75		
			1	3.70	1.50		5.55		
			1	4.40	1.50		6.60		
	1st Main 4thA Cross		1	6.10	1.50		9.15		
	5th Cross		1	8.40	1.50		12.60		
			1	5.40	1.50		8.10		
						Sqm	64.20	5418.00	347835.60
	Data Rate	**5418.00**							
17	Providing and laying cement concrete using 20mm and down size granite jelly of ready mixed concrete (RMC)for R.C.C works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, form works and scaffoldings to withstand pumping of concrete, with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) Ready mixed Cement concrete M-20 for raft foundation, column footing, main and secondary beams. and as per the directions of the Engineer-in-charge of the work	Cum							
	For Cc Road								

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Sl no.	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	St michel School Road		1	98.00	4.92	0.15	72.28		
	Jai Bheem Nagar		1	17.00	4.90	0.15	12.50		
	Ambedkar Bhavan Road		1	17.00	5.50	0.15	14.03		
						Cum	98.80	5210.96	514831.38
	Basic Rate	4916.00							
	Area Weightage @6%	294.96							
	Total	**5210.96**							
18	Vaccum De- watering with vaccum pump and suction mat and compaction with skin flater clubbed with floatiog disc including cost of generator, HOM of machinery Sereed Vibratory Power Floaterblade and diisc etc. with all lead and lift and as per the directions of the Engineer-in-charge of the work	Sqm							
	For Cc Road								
	St michel School Road		1	98.00	4.92		481.85		
	Jai Bheem Nagar		1	17.00	4.90		83.30		
	Ambedkar Bhavan Road		1	17.00	5.50		93.50		
						Sqm	658.65	72.08	47475.64
	Basic Rate	68.00							
	Area Weightage @6%	4.08							
	Total	**72.08**							
19	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6 kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete and as per the directions of the Engineer-in-charge of the work .	Mtr							
	bande Main Road		1	357.60			357.60		
						Mtr	357.60	394.32	141008.83
	Basic Rate	372.00							
	Area Weightage @6%	22.32							
	Total	**394.32**							
20	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. As per the direction of Engineer incharge	Nos							
	Kogilu Layout								
	bande Main Road		1	466.30			466.30		
				466.30/0.45			1036.22		
						Nos	1036.22	432.48	448145.39
	Basic Rate	408.00							
	Area Weightage @6%	24.48							
	Total	**432.48**							
21	Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Specification As per the direction of Engineer incharge [Primer Coat]	Sqm							

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Sl no.	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	bande Main Road		1	466.30		0.30	139.89		
						Sqm	**139.89**	**53.00**	**7414.17**
	Basic Rate	50.00							
	Area Weightage @6%	3.00							
	Total	**53.00**							
22	Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Specification As per the direction of Engineer incharge	Sqm							
	bande Main Road		1	466.30		0.30	139.89		
						Sqm	**139.89**	**102.82**	**14383.49**
	Basic Rate	97.00							
	Area Weightage @6%	5.82							
	Total	**102.82**							
23	Laying Reinforced cement concrete pipe NP2/ Prestressed concrete pipe for culverts on first class bedding of granular material in single row including fixing collar with cement martar 1:2 but excluding excavation, protection works, backfilling and masonry works in head walls and parapet complete as per specifications. and as per the directions of the Engineer-in-charge of the work .	Mtr							
	Agrahara Layout		12	2.50			30.00		
						Mtr	**30.00**	**5976.28**	**179288.40**
	Basic Rate	5638.00							
	Area Weightage @6%	338.28							
	Total	**5976.28**							
24	Providing 100mm and down nominal size and as per the directions of the Engineer-in-charge of the work .								
	Agrahara Layout	Cum	12		0.28	0.60	2.02		
						Cum	**2.02**	**987.62**	**1991.04**
25	Providing 40mm and down nominal size and as per the directions of the Engineer-in-charge of the work								
	Agrahara Layout	Cum	12		0.28	0.40	1.34		
						Cum	**1.34**	**1091.43**	**1466.88**
26	Providing 20mm and down nominal size and as per the directions of the Engineer-in-charge of the work .								
	Agrahara Layout								
	For Pit (Area-3.14xD2/4)	Cum	12		0.28	0.40	1.34		
						Cum	**1.34**	**1091.43**	**1466.88**
27	Providing fine aggregate 2.36 nominal size and as per the directions of the Engineer-in-								
	Agrahara Layout								
	For Pit (Area-3.14xD2/4)	Cum	12		0.28	0.30	1.01		
						Cum	**1.01**	**1054.29**	**1062.72**
28	Loading and Unloading of stone boulders by manual means complete as per specificatiion and as per the directions of the Engineer-in-charge of the work .	Cum							
				Quantity vide item No-1			1361.89		
	Basic Rate	57.00				Cum	**1361.89**	**60.42**	**82285.65**
	Area Weightage @6%	3.42							
	Total	**60.42**							

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Improvements to CC Roads & CC drains works at Kogilu layout in Ward No. 05

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
							Grand Total		8362513.50 8460344.00
28	For 12% Applicable GST							1003501.62	1015241.00
29	For 4% KRIDL Charges							334500.54	338414.00
30	For 1% DPR Charges & 1% PMC Charges							198000.00	84603.44
31	Miscesallaneous Charges	L/S						1484.34	1397.56
									9900000.00

Certificate:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per PWD SR of 2018-19
3 This Estimate Grant under SC-SP/TSP Mukyamantrigala Nava Bengaluru Yojane
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 05(Jakkur)

Assistant Executive Engineer 15/10/19
Project Yelahanka

Executive Engineer 22/10/19
Bruhat Bangalore Mahanagara Palike

Transheight Consultants Pvt. Ltd. Bangalore

Administrative Approval

Accorded For RS. 99-00 Lakhs only
Head of A/C P-3727
CER NO :.....24..... Dt:04/11/2019

E.E. (Project) 4/11

Technical Sanction

Accorded For RS 99.00 Lakhs only
Head of A/C P 3727
CER NO :.....158..... Dt:06.11.2019

TA CE (YNK)

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